PRG

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/535,733	03/27/2000	Jeffrey Alan Millington	60,314-110	4155

26096 7590 01/29/2003

CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER
AMINI, JAVID A

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 01/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary	Application No.	Applicant(s)	
	09/535,733	MILLINGTON ET AL.	
	Examiner	Art Unit	
	Javid A Amini	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *1,2,10,16 and 19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 December 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Response to Amendment

Applicant's arguments filed November 13, 2002 have been fully considered but they are not persuasive.

1. Applicant cancelled claims 1, 2, 10, 16, 19.

2. Applicant amend claims 3, 4, 7-9, 11, 17, 25 and 27.And 4, 7-9, 11, 17, and 25 are in independent form.

3. The drawings have been amended to indicate that Fig. 1-2 are prior art.

Response to remarks

4. Page 6, 3 paragraph, regarding claim 4, applicant argued that the reference Person does not disclose or suggest an off-road mode. Contrary Person discloses in (col. 2, lines 33-41) calculation of the optimum route, adaptation of the route to personal requirements, and preselecting the route in which automatic route (providing a new direction from off-road (away from main road)) indication is to be carried out.

5. Page 6, 4 paragraph, regarding claim 7, applicant argued that a more detailed cartographic entity for a second operational mode for the same cartographic feature. Person discloses in (col. 2, lines 60-69 roads, population centers, airports, buildings, other landmarks, mileages, and bearings or directions according to the operator's request is displayed visually or vocally.

6. Page 6, 5 paragraph, regarding claim 8, applicant argued that the panning mode (rotation) is not mentioned by Person. The step is inherent because the invention is electronic navigation system, and it must have the panning mode otherwise how will it navigate from start to stop locations?

7. Page 6, 6 paragraph, regarding claim 9, applicant argued that Person does not disclose the cross-hatching and shading. Person discloses in (col. 7, lines 55-62) that each type of road may be further distinguished by line size or by different colors. Person discloses in (col. 8, lines 1-13) each type of landmark (airport, building, or other landmark) may be further distinguished by different colors. The source of cross-hatching and shading are the color memory and color generator and is very relevant to the limitations of claim 9.

8. Page 6, 7 paragraph, regarding claim 11, applicant argued that Person does not disclose the applicant argued that Person does not disclose the cartographic entities for different cartographic features. Person discloses in (col. 5, lines 29-34) that External memory devices may also contain the latitude and longitude coordinates, in a linear continuum, along with the identity, and category of roadways and other linear landmarks within a geographical area such as interstate highways, state highways, roads, rivers, railways, and boundary lines.

9. Page 6, 8 paragraph, regarding claim 17, see argument above for claim 4.

10. Page 7, first paragraph, regarding claims 29 and 30, applicant argued that Person does not disclose the limitations. See pervious office action regarding claims 29 and 30, which are rejected by different reference Ito et al. not Person.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3, 4-9, 11-15, 17-18, and 20-30 rejected under 35 U.S.C. 102(b) as being anticipated by Person US patent 5,067081, filed date 8/30/1989.

1. Claim 3,

Regarding claim 3, "wherein the less detailed desired cartographic entity is no cartographic entity". Person discloses (Col. 15, lines 1-3) the effect of this invention is to tailor a more detailed electronic map to the precise needs of the user, thereby filtering out the unnecessary information and permitting significantly more useful information within the confines of the display screen.

2. Claim 4,

Regarding claim 4, "determining an operational mode of the navigation system, wherein the navigation system includes first and second operational modes with the first operational mode comprises on road mode in which a vehicle position is displayed relative to a road system and the second operational mode comprises off-road mode in which the vehicle position is displayed irrelative to a road system; selecting a desired cartographic entity for a cartographic feature based upon the cartographic feature in the first operational mode and selecting a more detailed desired cartographic entity than the less detailed cartographic entity for the same cartographic feature in the second operational mode; and displaying the selected desired cartographic entity on the video display". Person discloses in (col. 7, lines 56-60) for selecting a desired cartographic entity. Person discloses Fig. 4 more than two operational modes (all, cities, roads, land) and the power on initialize that determining an operational mode of the navigation system.

3. Claim 5,

Regarding claim 5, "wherein a first cartographic entity is displayed when navigation system is in off-road mode and said first cartographic entity is not displayed with the navigation system is in on-road mode". Person discloses in Fig. 4 the operation mode "ALL" that will display the cartographic entity; it can be either on or off road mode.

4. Claim 6,

Regarding claim 6, "Wherein the navigation system includes a third operational mode comprising on-road guidance mode, and step b) includes selecting a least detailed desired cartographic entity that is one of the same as the less detailed desired cartographic entity and a less detailed version of the less detailed desired cartographic entity the less detailed desired cartographic entity for the on-road mode.

Person discloses (Col. 14, lines 59-65) that the user may use the system to navigate between the present location and any final or intermediate destination by setting the width of a path between the two points and calling up the same information falling within this designated path. This provides a list of population centers, roads, major buildings, and other landmarks to be looked for along the way as a guide for the user.

5. Claims 7 and 8,
Regarding claim 7, "determining an operational mode of navigation system wherein the navigation system includes first and second operational modes and the first operational mode is defined by a predetermined vehicle speed; selecting a desired cartographic entity for a cartographic feature based upon reaching the predetermined vehicle speed in the first operational mode including selecting a less detailed desired artographic entity for the cartographic feature at the predetermined vehicle speed in the first operational mode and selecting a more detailed desired cartographic entity than the less detailed desired cartographic entity for the same cartographic feature in the second operational mode; and displaying the selected desired cartographic entity on the video display". Person discloses in (col. 7, lines 56-60) for selecting a desired cartographic entity. Person discloses Fig. 4 more than two operational modes (all, cities, roads, land) and the power on initialize that determining an operational mode of the navigation system. Person discloses (Col. 3,lines 5-12) that his navigation system does not require inputting settings into the system before making use of it, unlike other navigational systems and is significantly less costly to build than systems requiring the attachment of bearing and speed sensors to a moving vehicle, reading the results into the device, and computing the present location and heading from such ever-changing data. By knowing the speed of system the distance and time can be calculated using this formula: X(destination)=V(speed)T (time). As the vehicle moves the display is updating the current information.

6. Claim 9,
Regarding claim 9, "determining an operational mode of the navigation system, wherein the navigation system includes first and second operational modes and the less detailed desired cartographic entity is defined by perimeter with cross-hatching within the perimeter and the more detailed desired cartographic entity is defined by the perimeter with solid shading disposed within the perimeter; selecting a desired cartographic entity for a cartographic feature base upon the operational mode, including selecting a less detailed desired cartographic entity for the cartographic feature in the first operational mode and selecting a more detailed desired cartographic entity than the less detailed cartographic entity for the same cartographic feature in the second operational mode; and displaying the selected desired cartographic entity on video display". Person discloses in (col. 7, lines 56-60) for selecting a desired cartographic entity. Person discloses Fig. 4 more than two operational modes (all, cities, roads, land) and the power on initialize that determining an operational mode of the navigation system. Person discloses (Col. 3,lines 5-12) that his navigation system does not require inputting settings into the system before making use of it, unlike other navigational systems and is significantly less costly to build than systems requiring the attachment of bearing and speed sensors to a moving vehicle, reading the results into the device, and computing the present location and heading from such ever-changing data. By knowing the speed of system the distance and time can be calculated using this formula: X(destination)=V(speed)T (time). As the vehicle moves the display is updating the current information. Person discloses Fig. 3 a graphic color memory 79 stores data of primary colors and is coupled with a color generator 80 and is accessible through multiplexer 67 to the microprocessor 55 and the display device 17 for providing various graded color data.

7. Claim 11

Regarding claim 11, "determining an operational mode of the navigation system; selecting a first cartographic entity for a first cartographic feature base upon the operational mode, wherein the first cartographic entity is a vehicle route having a first intensity, and selecting a second intensity for a second desired cartographic entity for a second cartographic feature which is different than the first intensity; and simultaneously displaying the first and second desired cartographic entities on video display". Person discloses in (col. 7, lines 56-60) for selecting a desired cartographic entity. Person discloses Fig. 4 more than two operational modes (all, cities, roads, land) and the power on initialize that determining an operational mode of the navigation system. Person discloses (Col. 3,lines 5-12) that his navigation system does not require inputting settings into the system before making use of it, unlike other navigational systems and is significantly less costly to build than systems requiring the attachment of bearing and speed sensors to a moving vehicle, reading the results into the device, and computing the present location and heading from such ever-changing data. By knowing the speed of system the distance and time can be calculated using this formula: X(destination)=V(speed)T (time). As the vehicle moves the display is updating the current information. Person discloses in Fig 3. a light control switch 27 on the operation control section 18 controls a light source to allow use of the navigational apparatus during non-daylight hours. The light source (not shown) may be located on the lid to direct light on the operation control and keyboard sections 18 and 19, or may be located beneath the surface of the housing to backlight the keys and switches. Also Person discloses in Fig. 3 that a radius generation program 76 in memory 75 graphically display a radius of the appropriate points or landmarks within the selected radius on the screen.

8. Claims 12 –15,

Regarding claim 12, "wherein the first and second intensities are selected from a color palette having a plurality of colors"; Regarding claim 13, "wherein the first and second intensities are selected a color palette having a plurality of colors"; Regarding claim 14, "wherein each of the plurality of colors are defined by green, and red values with the first intensity having first blue, green, and red values and the second intensity having second blue, green, and red values that are a percentage of the glue, green, and red values, respectively"; Regarding claim 15, "wherein the first intensity is approximately twenty percent less than the second intensity wherein the first blue, green, and red values are approximately twenty-five percent less than the second blue, green, and red values, respectively.

Person discloses in Claim 19 and (col. 10, lines 43-54) the character memory 66, population center memory 69, landmark memory 71, roadway or linear memory 73, radius memory 75, path memory 77 (and optional graphic color memory 79) are each accessible, through multiplexer 67, to the microprocessor 55 and display control circuit 65. Data output from the character generator 67, population center generator 70, landmark generator 72, roadway or linear generator 74, radius generator 76, path generator 78 (and optional graphic color generator 80) is transmitted to the display device 17 through a video controller 68. Also in (Col. 7, lines 40-49) a control switch 46 causes a display on the screen of a dot representing only cities or population centers falling in whole or in part within the radius around the current or designated location, and displays at the same time the mileage between the location and the destination and the bearing or direction to the destination. The dot is positioned on the screen relative to the latitude and longitude of the

population center it represents. In more sophisticated systems, each type of population center may be further distinguished by size of the dot or different colors. Color generator generates the combination of following colors (blue, green and red) in display.

9. Claim 17

Regarding claim 17, "at least one position determining device for providing a vehicle location signal; a database having a map with cartographic features and cartographic entities for representing said cartographic features; a processor interconnected to said at least one positioning device and said database for determining the location of the vehicle relative to said map; a video display connected to said processor for displaying an area of said map; a plurality of operational modes each displaying said map area, wherein said processor determines an operational mode from said plurality of said operational modes and selects a desired cartographic entity for a cartographic feature based upon said operational mode, said processor displaying said selected desired cartographic entity on said video display, wherein said plurality of operational modes includes first and second operational modes, and said processor selects a less detailed desired cartographic entity for said said cartographic feature in said first operational mode and selects a more detailed desired cartographic entity than said less detailed desired cartographic entity for said same cartographic feature in said second operational mode, and wherein said first operational mode comprises on-road mode in which a vehicle position is displayed relative to a road system and said second operational mode comprises off-rode mode in which said vehicle position is displayed irrelative to a road system", Person discloses (Col. 15, lines 1-3) the effect of this invention is to tailor a more detailed electronic map to the precise needs of the user, thereby filtering out the unnecessary information and permitting significantly more useful information within the confines of the display screen. Person discloses in Fig. 4 more than two operational modes (all, cities, roads, land). Person discloses in (col. 14, lines 50-55) that user may set a desired radius from current location. Person illustrates in Fig. 2 the microcomputer unit (processor) that receives information from its sources and calculates the location. See Fig. 4 for plurality of operational modes.

10. Claim 18

Regarding claim 18, "wherein said plurality of operational modes les first and second operational modes, and said processor selects a less detailed desired cartographic entity for said first operational mode and selects a more detailed desired cartographic entity than said less detailed desired cartographic entity for said second operational mode"; "wherein said less detailed desired cartographic is no cartographic entity".

Person discloses (Col. 15, lines 1-3) the effect of this invention is to tailor a more detailed electronic map to the precise needs of the user, thereby filtering out the unnecessary information and permitting significantly more useful information within the confines of the display screen.

11. Claim 20

Regarding claim 20, "wherein said apparatus includes a third operational comprising on-road guidance mode, and said processor selects a least detailed desired cartographic entity that is one

of the same as said less detailed desired cartographic entity and detailed version of said less detailed desired cartographic entity".
Person discloses in Fig. 4 the operation mode "ALL" that will display the cartographic entity; it can be either on or off road mode.

12. Claim 21
Regarding claim 21, "wherein said apparatus includes a third operational comprising on-road guidance mode, and said processor selects a least detailed desired cartographic entity that is one of the same as said less detailed desired cartographic entity and detailed version of said less detailed desired cartographic entity".
Person discloses (Col. 14, lines 59-65) that the user may use the system to navigate between the present location and any final or intermediate destination by setting the width of a path between the two points and calling up the same information falling within this designated path. This provides a list of population centers, roads, major buildings, and other landmarks to be looked for along the way as a guide for the user.

13. Claims 22 and 23
Regarding claims 22 and 23, "wherein said first operational mode is defined by a predetermined vehicle speed"; "wherein said first operational mode comprises a panning mode".
Person discloses (Col. 3,lines 5-12) that his navigation system does not require inputting settings into the system before making use of it, unlike other navigational systems and is significantly less costly to build than systems requiring the attachment of bearing and speed sensors to a moving vehicle, reading the results into the device, and computing the present location and heading from such ever-changing data. By knowing the speed of system the distance and time can be calculated using this formula: X(destination)=V(speed)T (time). As the vehicle moves the display is updating the current information.

14. Claim 24,
Regarding claim 24, "wherein said less detailed desired cartographic is defined by a perimeter with cross-hatching disposed within said perimeter and said detailed desired cartographic entity is defined by said perimeter with solid shading disposed within said perimeter".
Person discloses Fig. 3 a graphic color memory 79 stores data of primary colors and is coupled with a color generator 80 and is accessible through multiplexer 67 to the microprocessor 55 and the display device 17 for providing various graded color data.

Claim 25-30 rejected under 35 U.S.C. 102(b) as being anticipated by Ito US patent 6249740B1, filed date 1/21/1999.

15. Claims 25 and 26
Regarding claim 25, "determining an operational mode of the navigation system; selecting a a first desired intensity for a first desired cartographic entity defining a focal cartographic entity based upon the operational mode; and simultaneously displaying the first desired cartographic entity on the video display at the desired intensity"; wherein the focal cartographic entity is a

vehicle route having an vehicle route intensity and includes selecting the desired intensity for the desired cartographic entity which is different than the vehicle route intensity",
Ito discloses in (Col. 37,lines 24-41) it is possible to pre-set the following guidance modes.
(i) Detailed Guidance Mode, According to this mode, guidance is carried out using the guidance information shown in FIG. 29 and the guidance information shown in FIG. 32.
(ii) Normal Guidance Mode, According to this mode, guidance is carried out using the guidance information comprised of combination of the guidance information shown in FIG. 29 and the guidance information shown in FIG. 30.
(iii) Simple Guidance Mode, According to this mode, guidance is carried out using the guidance information shown in FIG. 28. In this modification, the selectable items are not limited to those described above, and it is possible to change them according to needs.
Regarding claim 26, "wherein the focal cartographic entity is a vehicle having an intensity vehicle route and step b) includes selecting the desired intensity for desired cartographic entity which is different than the vehicle route intensity".
Ito discloses in Fig. 9 one example of the displayed outline map. The selection of desired intensity can be set from the setup menu.

16. Claim 27,
Regarding claim 27, "wherein the operational mode comprises on-road guidance mode".
Ito discloses in Fig. 19 a table, which shows selectable guidance items at the vehicle navigation apparatus.

17. Claim 28,
Regarding claim 28, "wherein the vehicle route intensity and desired intensity are selected from a color palette having a plurality of colors".
Ito discloses in Fig. 8(A-B) selecting Operation for the Type of Guidance at the Vehicle Navigation Apparatus.

18. Claims 29 and 30,
Regarding claims 29 and 30, "wherein each of the plurality of colors are defined by green, and red values with the vehicle route intensity having first blue, green, and red and the second desired intensity having second blue, green, and red values that are a percentage of the first blue, green, and red values, respectively"; "wherein the desired intensity is approximately 25% less than the vehicle route intensity wherein the first blue, green, and red values are approximately 25% les than the second blue, green and red values respectively".
Ito discloses (Col. 24, lines 54-58) the name of such branching road, if necessary. Further, when the need arises, the display of line segments and intersection names may be color-coded in an advancing color such as red when the distance between the intersections is within a prescribed range, and a receding color such as blue when the distance is greater than the prescribed range.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A Amini whose telephone number is 703-605-4248. The examiner can normally be reached on 8-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-8705 for regular communications and 703-746-8705 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Javid Amini
January 16, 2003

JEFFREY BRIER
PRIMARY EXAMINER